

May 2, 2005

### **CAUTION AND RECOMMENDATIONS WHEN MAKING THE TRANSITION TO ETHANOL**

The first time ethanol is introduced into a storage tank system it has the potential to release built-up residues, such as rust, varnish, gums, and sludge. These residues will not only impact your system, they have the potential to impact your customer's vehicle fuel tank and fuel systems, especially if the vehicle has never had ethanol blend fuels used in it before.

Ethanol will wash or clean the tank surface. The potential for a residue and water problem must be addressed before adding ethanol blended fuel to the storage tank. If you have a tank that has a history of water, you should reassess using that tank for ethanol blended fuels.

The preferred method for switching a tank from storage of straight gasoline to an ethanol blend is to empty the tank completely, and pump the water off the bottom until the tank is completely empty. Sludge should be cleaned out as well to lessen the risk of it contaminating the ethanol-blended fuel. The tank should be filled as close to capacity (90%) as possible, to minimize the effect of any small amounts of water that may remain following cleaning.

Care must be taken not only to eliminate water but also to repair or replace any equipment allowing water into storage tanks that will be used for ethanol blends. Water is an enemy of ethanol. Ethanol seeks water. Relatively small amounts of it in tanks will cause phase separation. Be sure to check gaskets, fill caps, and tank lids, and remind transport drivers of the importance of replacing all of them correctly when making fuel deliveries. Ethanol blends require a water detection paste that is made for ethanol fuels. The detection paste label will confirm if it can be used with ethanol fuels.

Check the pump/dispenser filters frequently when beginning the sale of ethanol fuels. To help protect your customers you will need to change the dispenser filters with each load that is delivered. This filter change will be necessary for several loads. It is not uncommon for filters to require frequent changing for a short period of time. Also, confirm that the filters are compatible with ethanol blended fuels.

Most tanks, pumps, lines, and dispensers that are currently used for gasoline can be used for ethanol blends without any modification. However, if you have a system more than 25 years old or do not know the history of your system it will be wise to have a petroleum equipment contractor evaluate the components for ethanol compatibility. If you have relined tanks, linings installed prior to 1980 are not suitable for ethanol blends. If you have any question about the age and material used to line a tank, contact the manufacturer or installer of the coating before storing ethanol blends in the tank.

The contamination and residue resulting from failure to properly prepare a tank for the introduction of ethanol blends may result in the entire contents of the tank being disposed of via a hazardous waste reclamation facility.

Be sure to label pumps appropriately with Ethanol and Octane stickers in compliance with Comm 48.10. The code paragraph is printed on the back page.

If you have additional questions on ethanol blended motor fuel storage, please contact your Commerce storage tank/petroleum products inspector. District offices are listed on the back page.

### Dispenser labeling requirement:

*Comm 48.10 (1) DISPENSING EQUIPMENT. (a) General. All devices dispensing petroleum products at filling stations, garages or other places where petroleum products are sold or offered for sale shall be marked with a conspicuous label visible on both faces of the dispensing device indicating the automotive fuel rating of the petroleum product. No label may be placed so that the text is side-ways or upside down.*

*(b) Oxygenated gasoline dispensing device labels. 1. A device that dispenses a gasoline—ethanol fuel blend of more than 2% by volume of ethanol shall be labeled with the maximum volume percent of ethanol at all times the product is offered for retail sale.*

*2. A device that dispenses a reformulated gasoline, as defined in s. 285.37 (1), Stats., that contains an oxygenate other than ethanol shall be labeled with the identity of the oxygenate at all times the product is offered for retail sale. If the reformulated gasoline contains multiple oxygenates, the label shall identify the predominate oxygenate based upon volume percent.*

*3. The label shall be placed on the face of the dispenser next to the name and grade of the product being dispensed. No label may be placed so that the text is sideways or upside down.*

*4. The label shall be contrasting in color to the dispenser and have lettering using not less than one-half inch high letters with a stroke of not less than one eighth inch in width.*

*5. The label shall identify the oxygenate as either "Ethanol", "Methyl Tertiary Butyl Ether (MTBE)", "Ethyl Tertiary Butyl Ether (ETBE)", "Tertiary Amyl Methyl Ether (TAME)", "Tertiary Butyl Alcohol (TBA)", or as an other oxygenate name approved by the department.*

*6. A label shall state that the product being dispensed "Contains" followed by the approved name for the oxygenate.*

*7. A label shall be conspicuous and legible to a customer when viewed from the driver's seat of a motor vehicle that is located within 6 feet of the dispensing device.*

### Multi-product dispensers:

The practice of labeling multi-product dispensers includes a label color and uniform size configuration minimizing customer confusion relating to the respective products. The label must be aligned with the nozzle or product button.



### District Retail Petroleum Offices:

#### DISTRICT 1

La Crosse Office / Lab  
4003 N. Kinney Coulee Rd.  
La Crosse, WI 54601-1831  
(608) 785-9312  
FAX (608) 789-7851

#### DISTRICT 2

Stevens Point Office / Lab  
2715 Post Rd.  
Stevens Point, WI 54481  
(715) 344-1970  
FAX (715) 345-5269

#### DISTRICT 3

McFarland Office / Lab  
4001 Terminal Dr.  
McFarland, WI 53558  
(608) 838-7835  
FAX (608) 838-8267